

A method and an apparatus are provided for selectively depositing flux on a plurality of flip-chip bumps arranged on a semiconductor chip by jet printing a flux pattern, which is substantially identical to the arrangement pattern of the flip-chip bumps. The flux pattern is determined by measuring the chip configuration and converting the configuration to computer-recognizable data. The converted chip configuration is stored in data storage, and a jet printing head prints the flux pattern based on the computer-recognizable data. A conveyance plate is provided to transport the semiconductor chip to a flux-deposition area below the jet printing head.